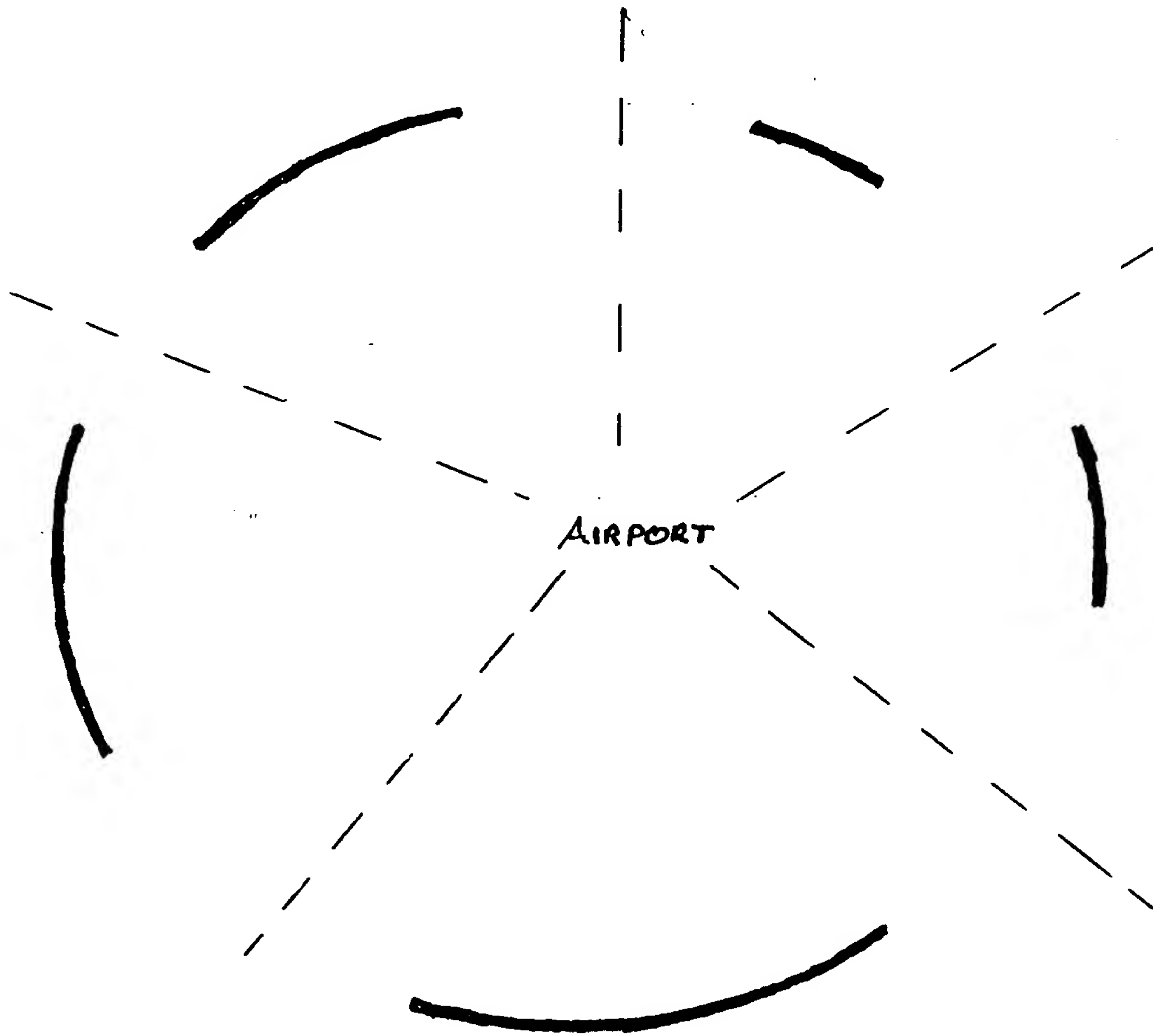


SECRET



GATE SYSTEM

FIG. 1

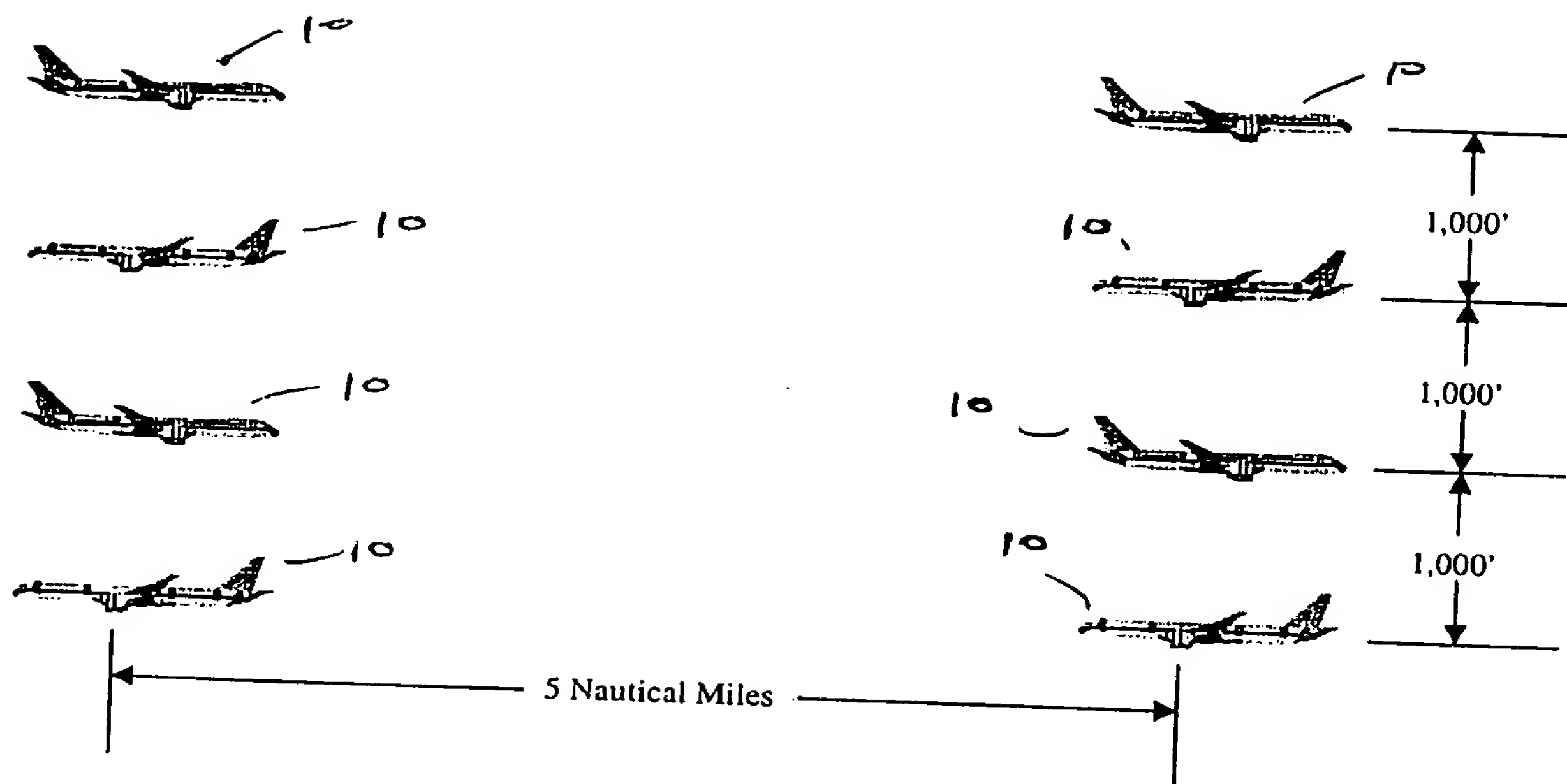


Figure 2 Minimum Airspace Separation on a Far 91.181 Federal Airway

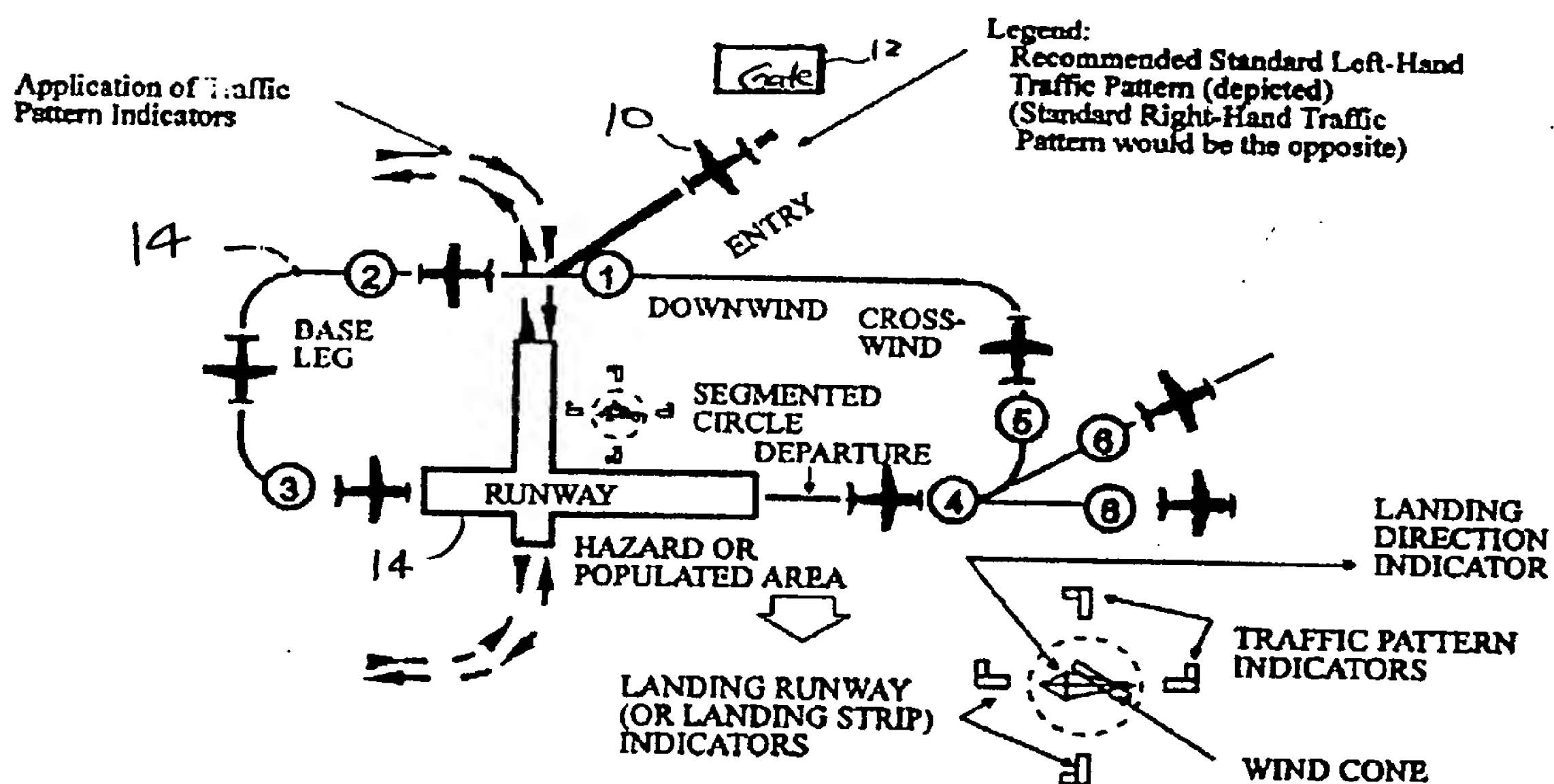


Figure 3 Typical Airport Traffic Pattern

YEAR	NUMBER OF NMAs
1992	311
1993	256
1994	276
1995	238
1996	194
1997	239

**Number of Near Mid Air Collisions between 1992 and 1997**

F, G. 4

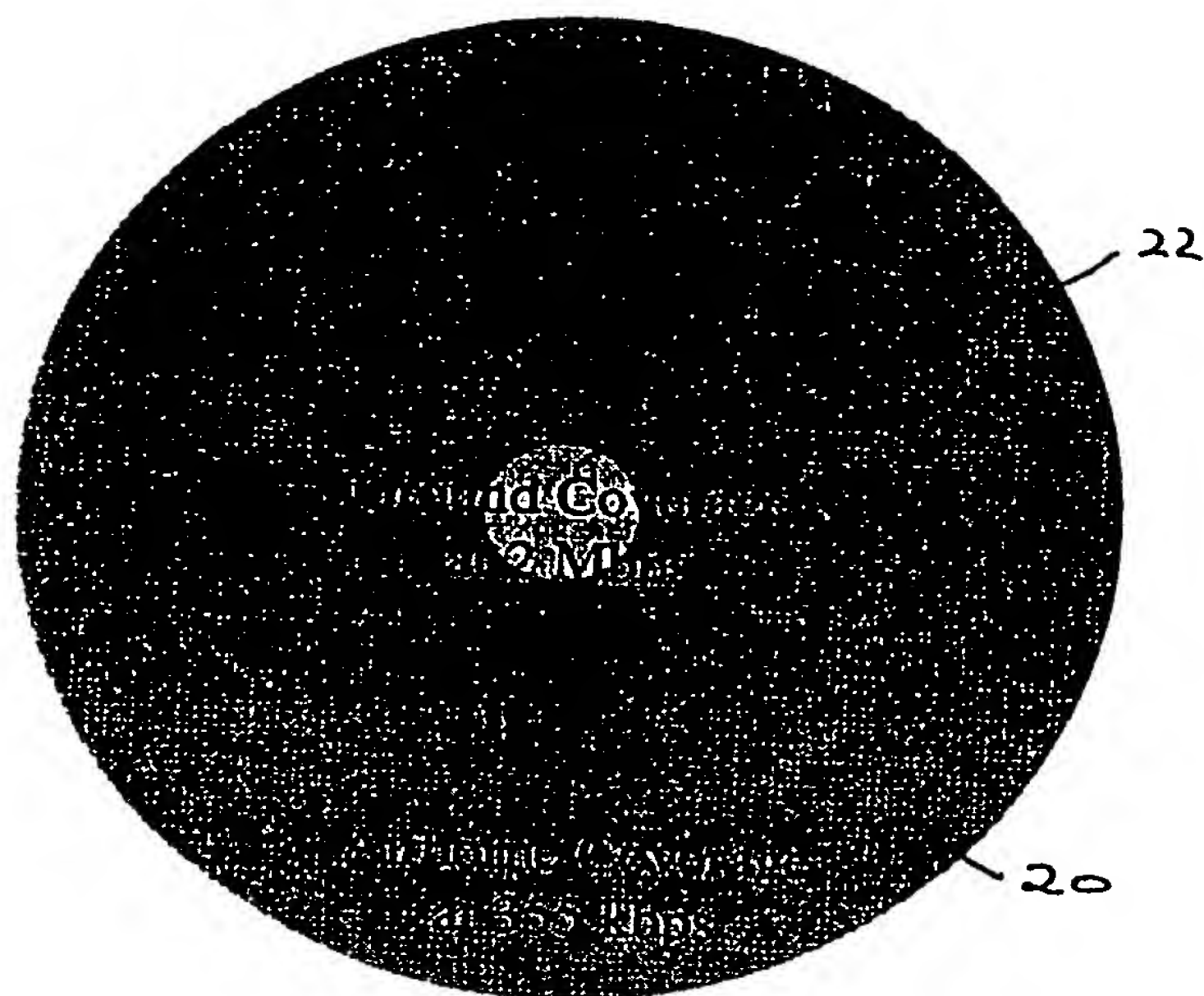
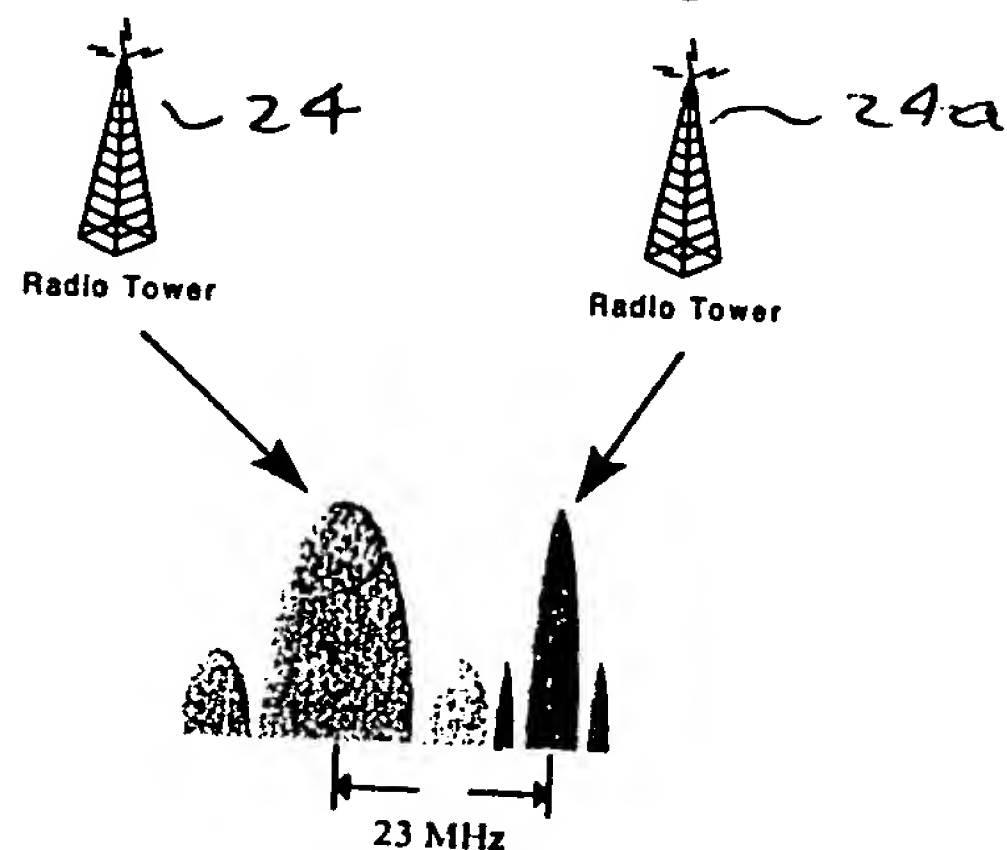


FIG. 5

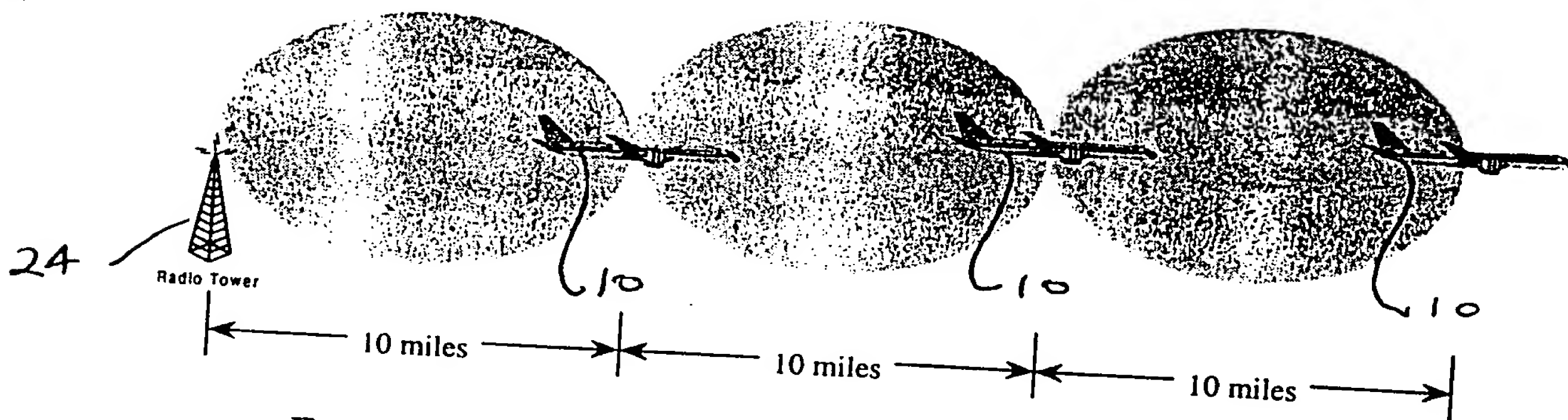
Single Ground  
Coverage Cell

Single Airborne  
Coverage Cell



Frequency Spectrum

FIG 5A



En route aircraft acting as repeaters extend the communication range of the ground-based network

FIG. 6



F. G. 6A

060900-234450

# Engine Start

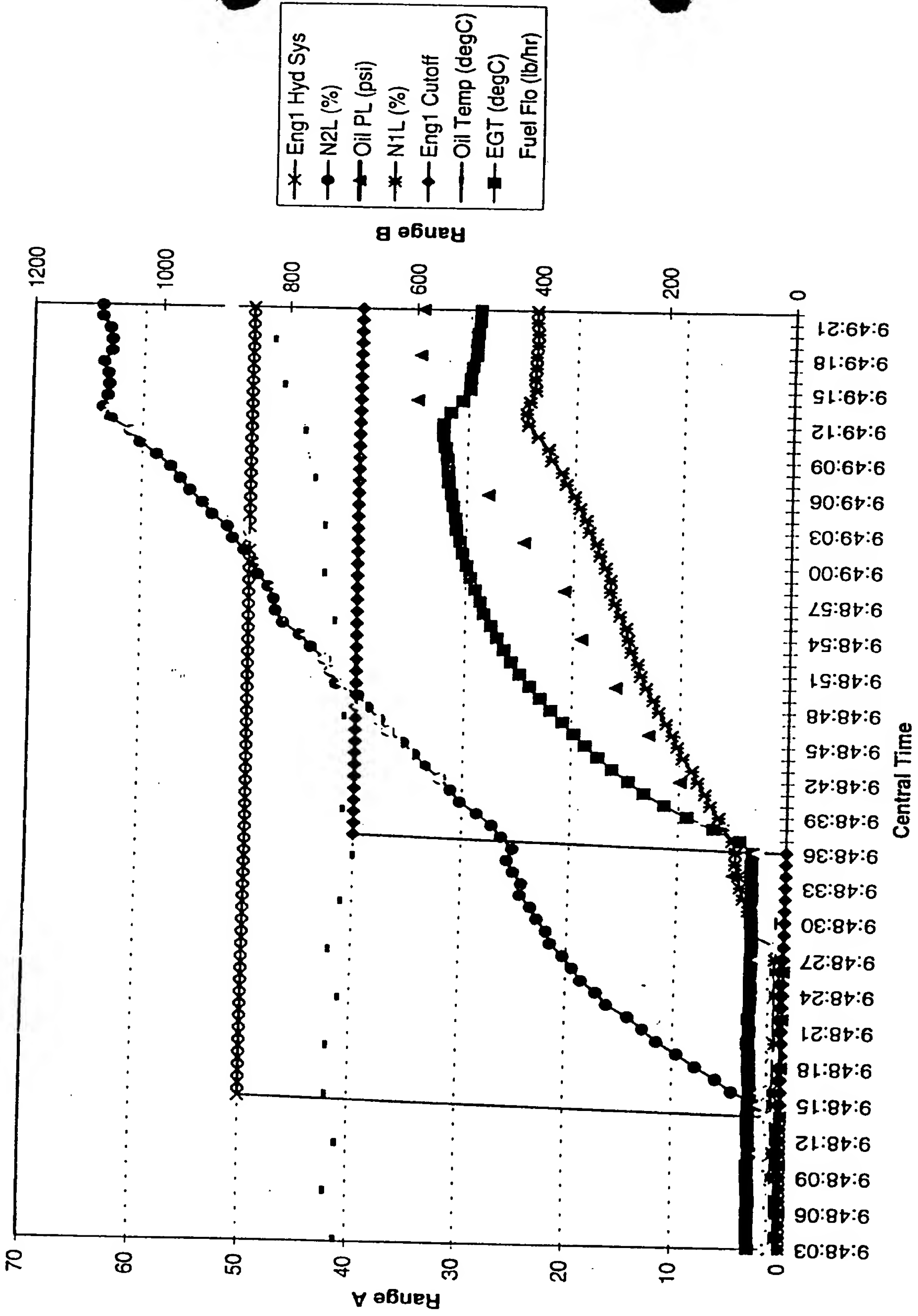
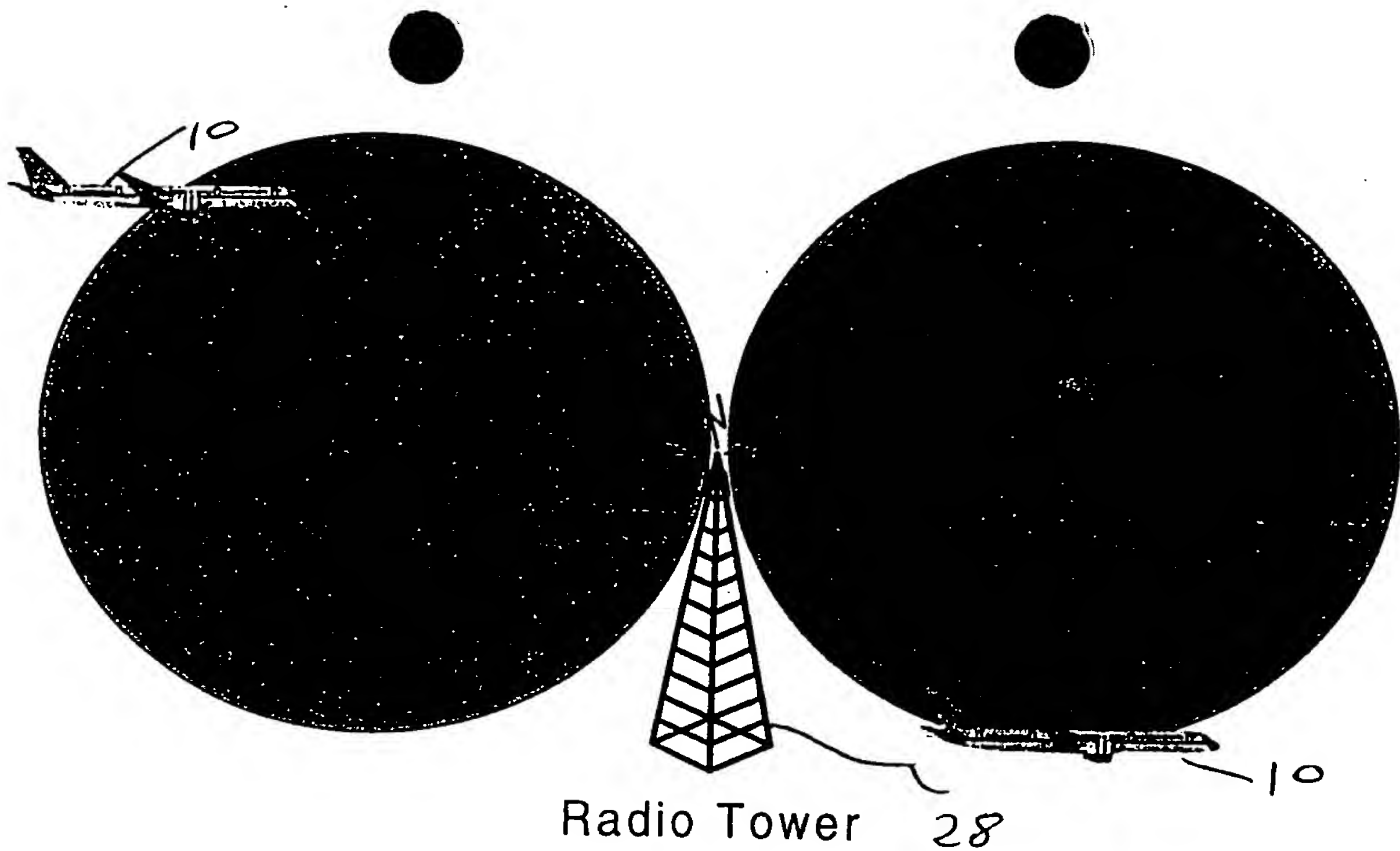


FIG. 6B



Omni-directional Antennas provide both Ground and Air Coverage

FIG. 7

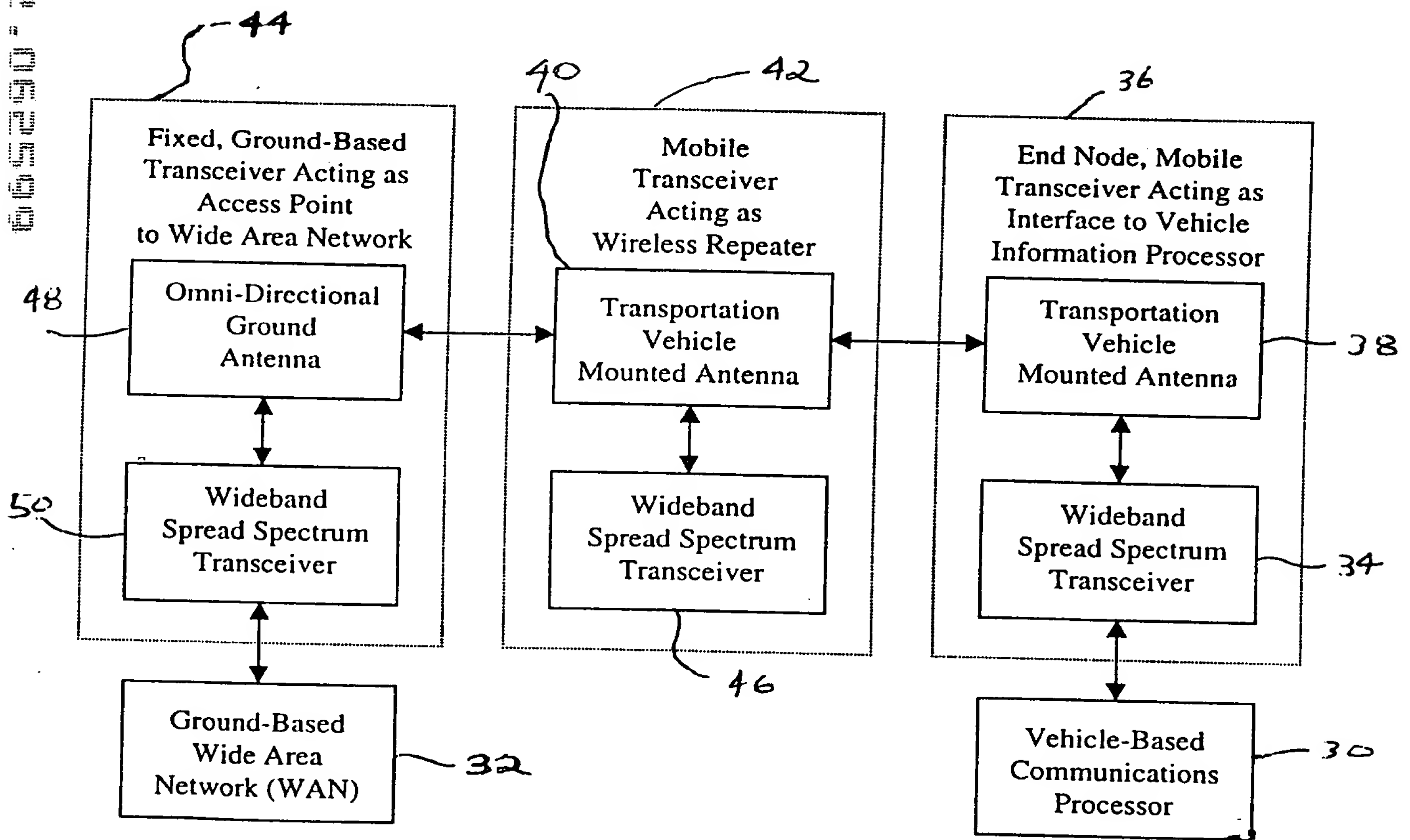


Figure 8



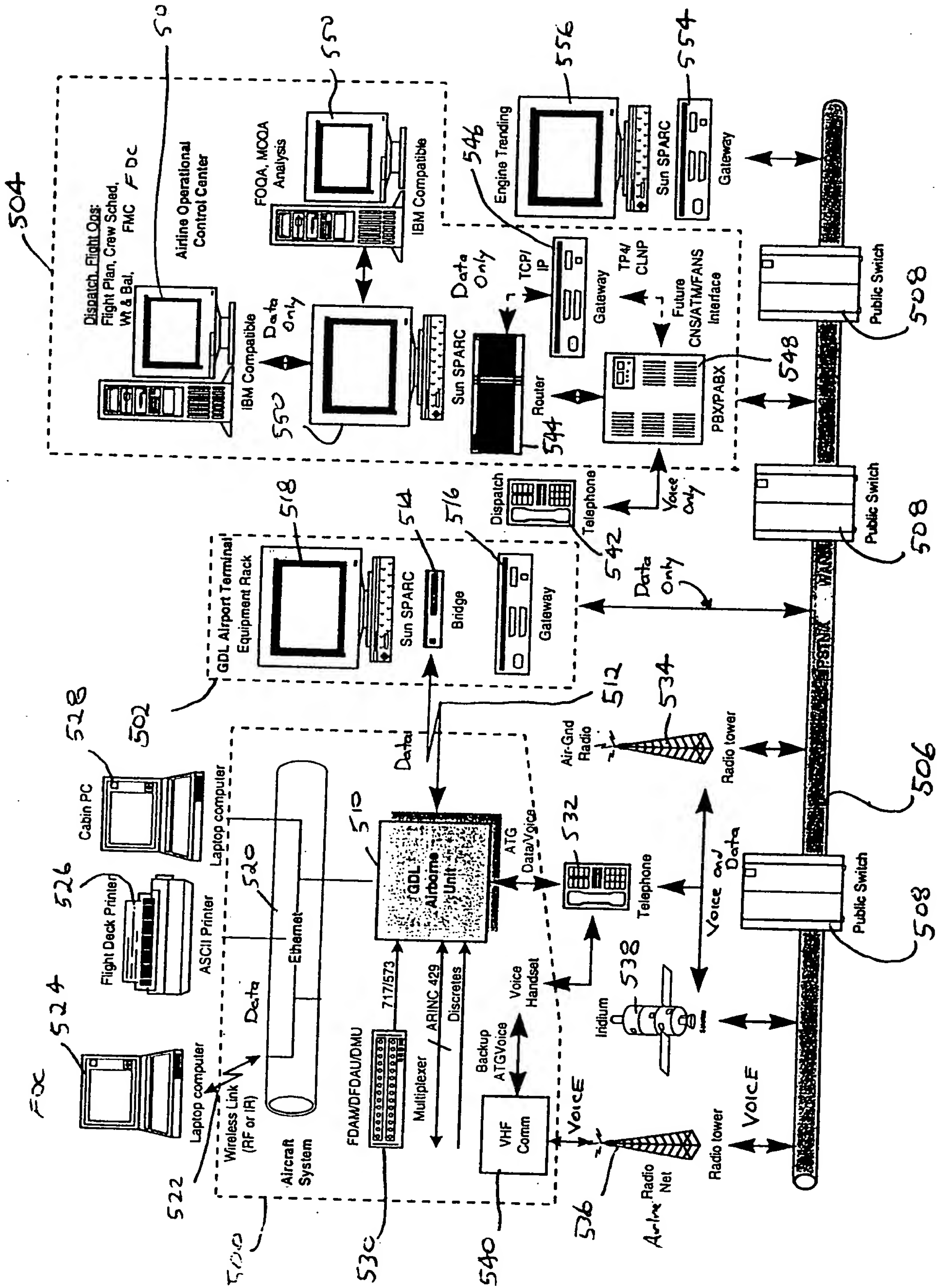
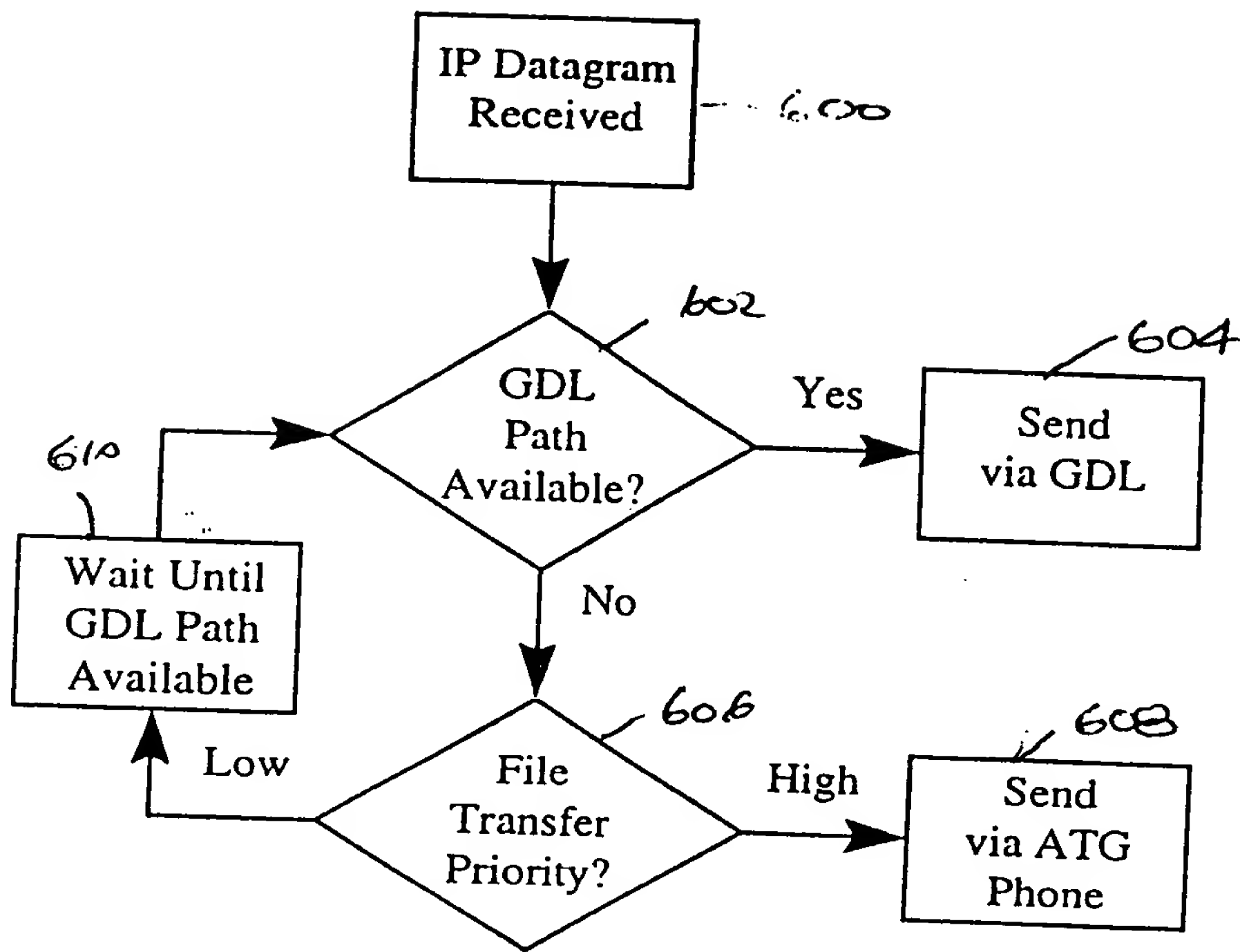
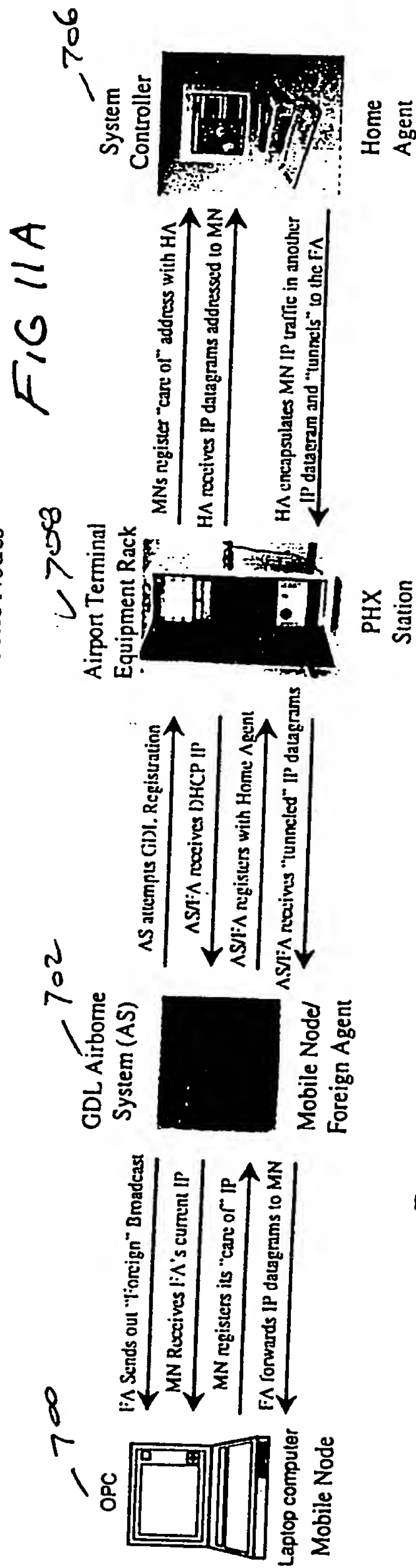
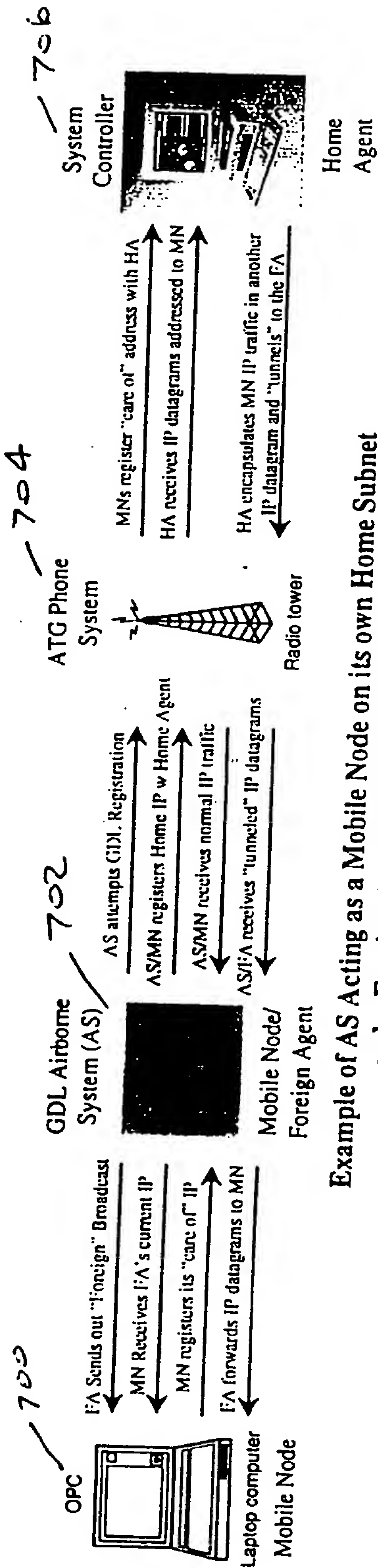


FIG. 9





F.G. 10



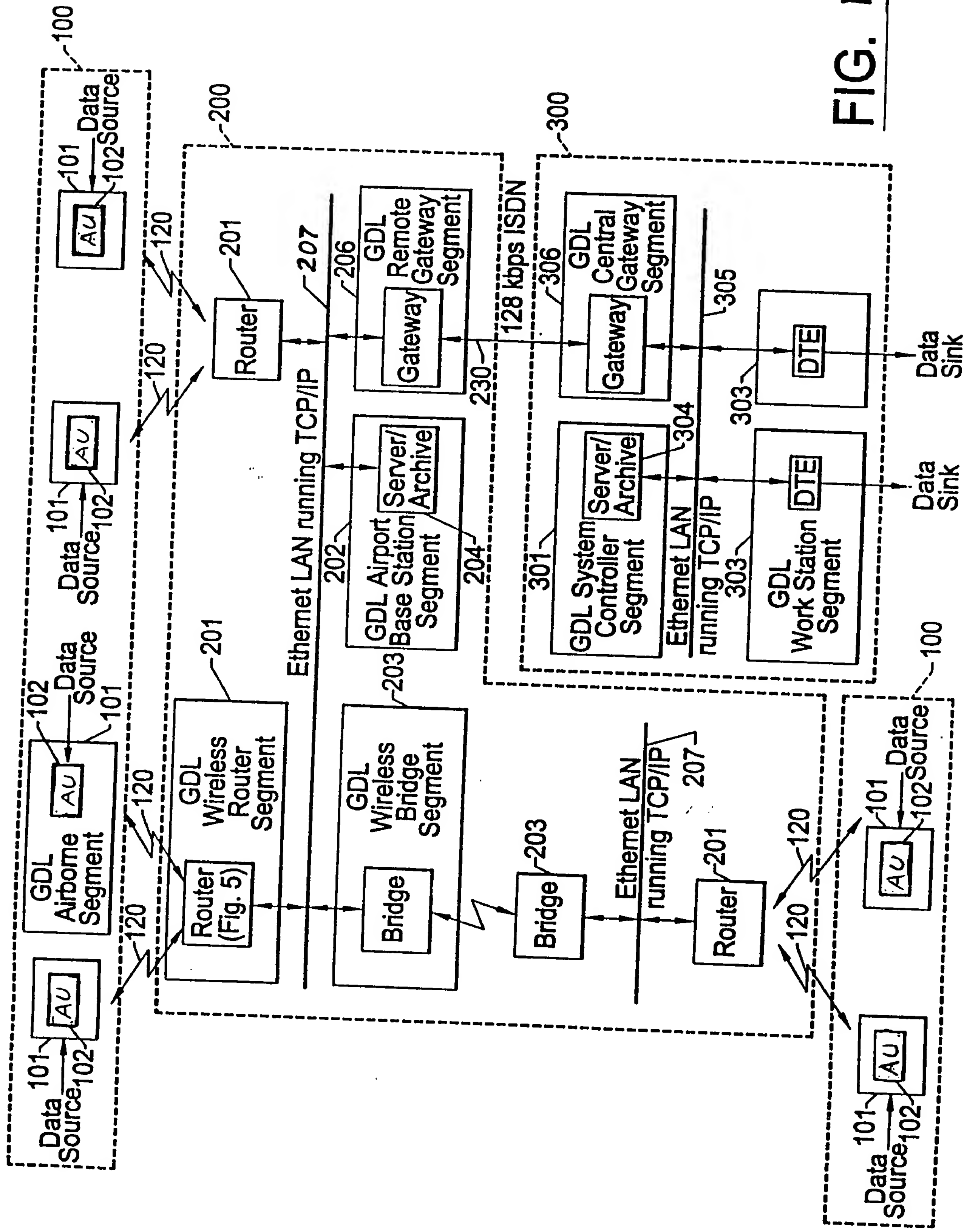


FIG. 12

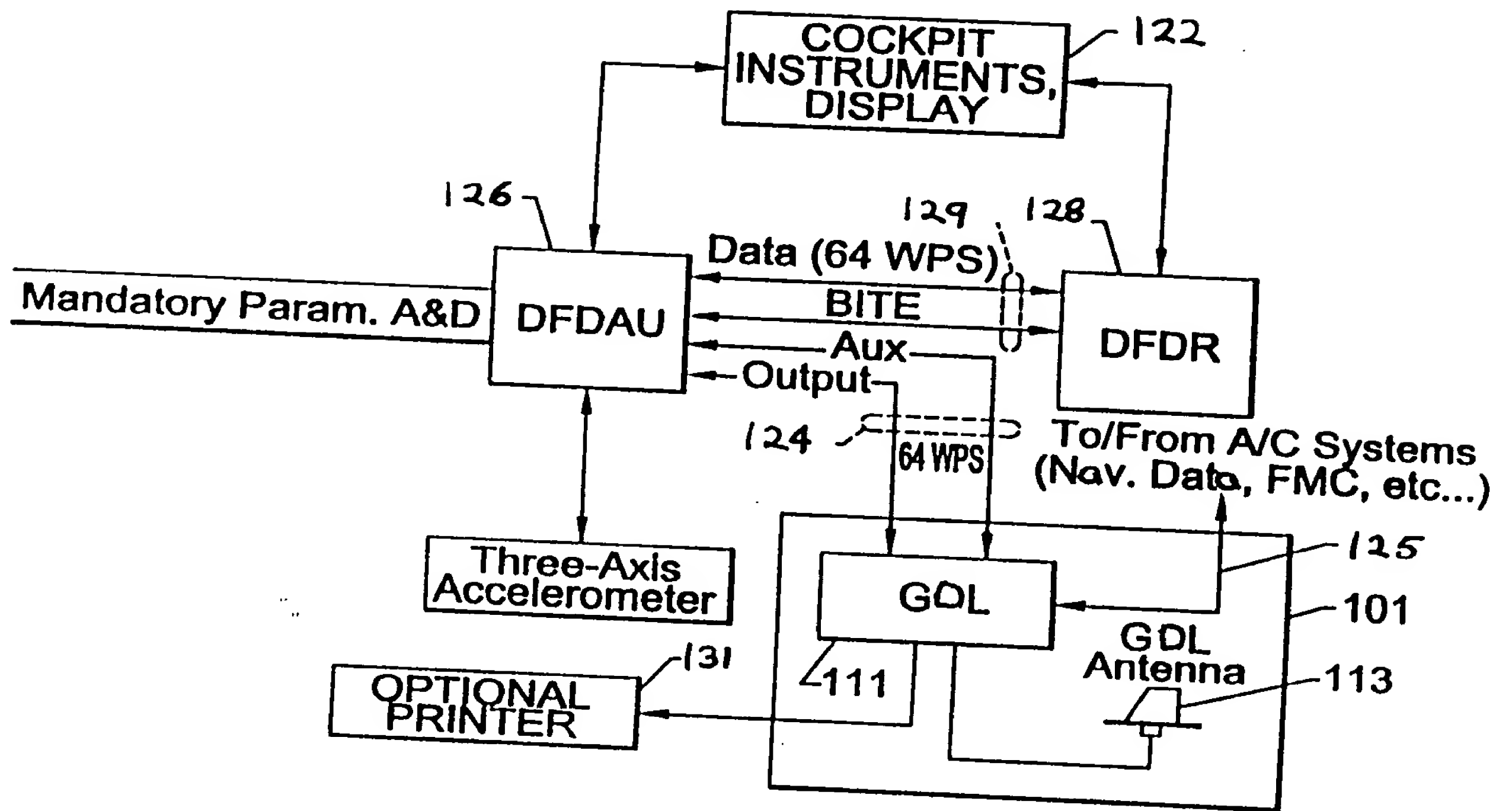


FIG. 13

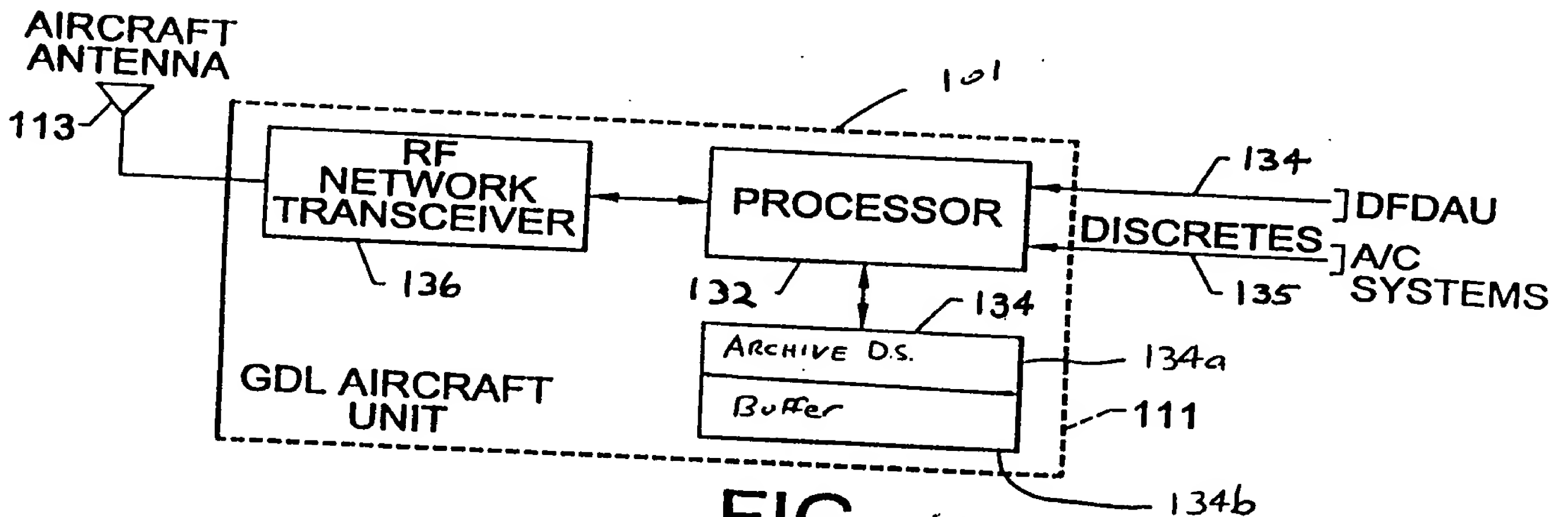


FIG. 14

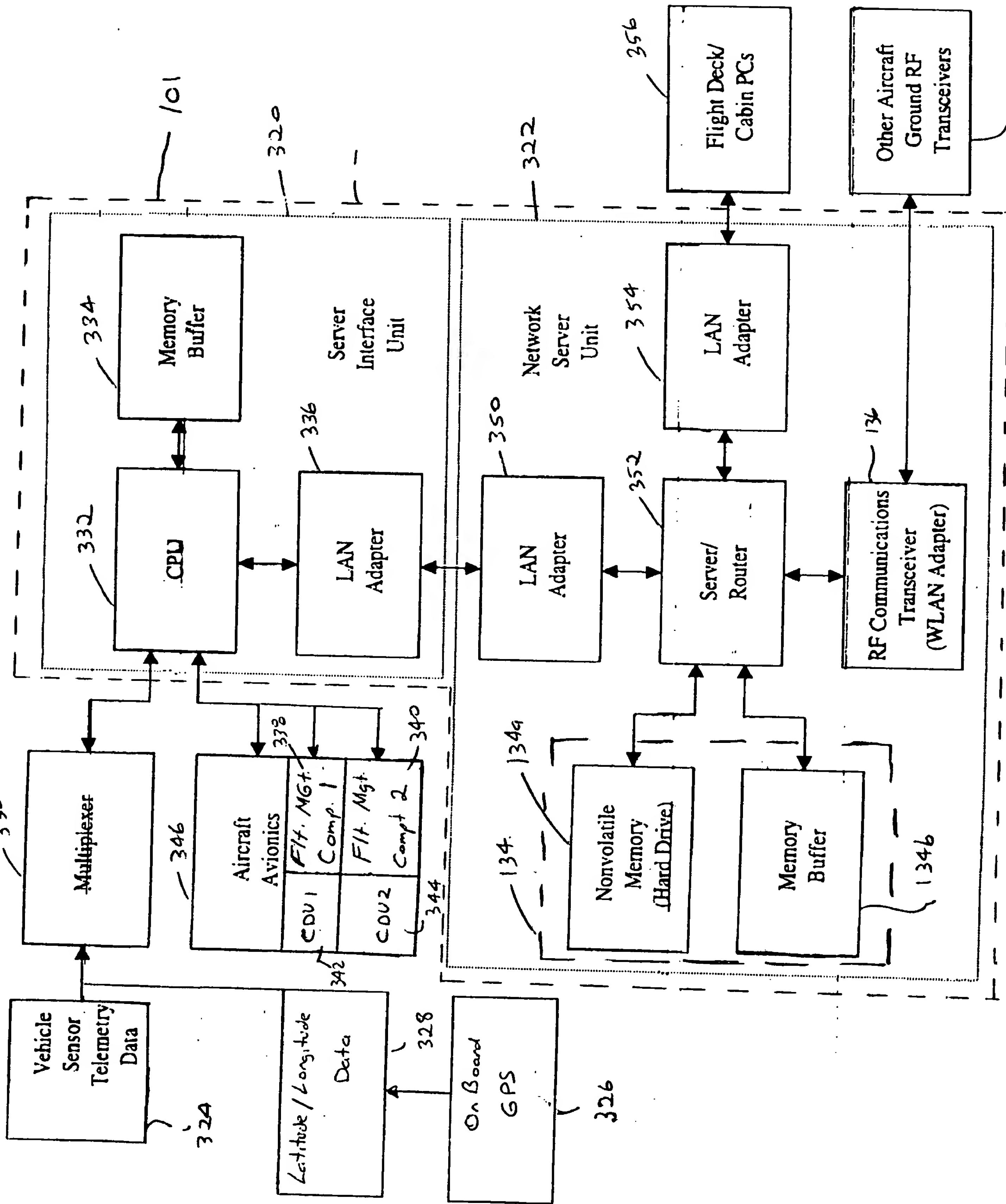


FIG. 15

